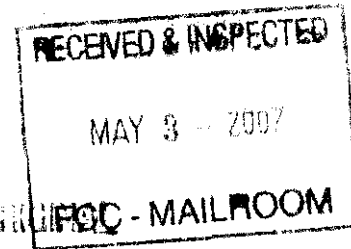# Community Health
Network, Inc.

May 3. 2007

Kevin J Martin, Chairman
Federal Communications Commiss on (FCC)
236 Massachusetts Ave., NE Suite 110
Washington, DC 20002

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Dear Commissioner Martin:

Community Health Network (CHN) is pleased to submit this funding request to the FCC's Rural Health Care Pilot Program (WC Docket No. 02-60) for the **Tennessee TeleHealth Network (TTN)** CHN is joined by two project partners, the State of Tennessee, and the University of Tennessee Health Science Center (UTHSC), in proposing this exciting project which will employ Internet2 to bring telehealth services to more than 440 sites in rural and underserved communities across Tennessee and adjoining states.

CHN and the TTN partnership are requesting $7,760,179 in FCC funds to establish TTN as one of the foremost telehealth systems in the nation. Governor Phil Bredesen. his e-Health Advisory Council, and UTSHC have made a strong commitment *to* support CHN in implementing this cutting-edge solution to address the many challenges faced by our health center members and hundreds of other health providers that serve rural and underserved communities. TTN has also been endorsed by three major health care provider associations, and has received many letters of support from Congressional leaders throughout the state.

Community Health Network will develop and administer TTN as a managed multi-service network. the most cost effective and reliable means of providing connectivity in today's market. The State of Tennessee will provide $350,000 to support the creation of TTN. The network will build and expand on the Tennessee Information Infrastructure (TNII), an award-winning broadband network now serving hundreds of state agencies, local governments and educational institutions within our state. UTHSC will provide TTN with invaluable expertise, technical support and access to educational programs, research and telemedicirie services for providers and patients who will utilize this regional network to improve their health and quality of care.

We ask for your favorable consideration of our proposal, and hope to soon have an opportunity to partner with the FCC to advance telehealth in Tennessee and throughout the region.

Sincerely,

Keith Williams, CEO
Community Health Network

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c Governor Phil Bredesen

Tennessee TeleHealth Network

A Proposal to

Federal Communications Corporation (FCC)
Rural Health Care Pilot Program
WC Docket No. 02-60

from

Community Health Network

in partnership with

University of Tennessee Health Science Center

and

The State of Tennessee

May 7,2007

Contact Person: Keith Williams
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Executive Summary

The Tennessee TeleHealth Network (TTN) pilot project seeks to provide the FCC with a new and innovative model for increasing the use of telehealth applications to promote better health and healthcare in our nation's communities. This proposed multi-state initiative has received the enthusiastic bipartisan endorsement of Tennessee's Congressional and State government leaders (endorsement letters attached).

Our state's Governor—Phil Bredesen—who currently serves as co-chair of the National Governor's Association's State Alliance for e-Health, a group that promotes telehealth and other advanced technology applications, recently remarked:

> *"States are taking the lead on a cutting-edge solution for an issue of national concern. Through the State Alliance for e-Health we hope to build consensus for electronic health information sharing that is cognizant of privacy concerns, addresses variations in state policies and recognizes the importance of a dialogue among states and the private sector in the health IT arena."*—Tennessee! Governor Phil Bredesen, November 2006

Meeting the Needs of the FCC for a Rural Health Care Pilot

Our TTN pilot proposal has been specifically designed to meet and exceed the **four** main goals of the FCC's Rural Health Care Pilot Program by providing:

- Goal 1: A broadband network that connects multiple health care providers to bring the benefits of innovative telehealth to those areas of the country where the need for those benefits is most acute. *The TTN proposal includes more than 440 sites, with nearly one-third of these sites in highly rural areas of Tennessee, Mississippi, Arkansas, and Kentucky as classified by Rural Urban Commuting Area codes.*

- Goal 2: Linking statewide and regional networks to a nationwide backbone to connect a number of government research institutions, as well as academic, public, and private health care institutions that are important sources of medical expertise and information. *TTN will utilize the advanced Internet2 network to support important diabetes research involving three of the state's leading research centers — the University of Tennessee Health Sciences Center, Vanderbilt University, and the Oak Ridge National Laboratory (ORNL).*

- Goal 3: Health care providers will gain increased access to advanced applications in continuing education and research. *TTN builds on more than nine years of extenbive experience in offering access to continuing medical higher education and research over broadband connections for health care practitioners in rural areas of Tennessee and in surrounding states.*

- Goal 4: A ubiquitous nationwide broadband network dedicated to health care that will enhance the health care community's ability to provide a rapid, coordinated response in the event of a national crisis. *TTN has support and involvement of the state's public health agencies, and state hospitals and emergency rooms, the first line of response in the event of a national health crisis.*

In addition, the TTN proposal fully meets the five selection criteria for the FCC Rural Health Care pilot proaram:

- Criteria 1: Aggregating the specific needs of health care providers, including providers that serve rural areas within a state or region. *TTN has the endorsement of the major health care provider associations in the state: Tennessee Primary Care Association, Tennessee Hospital Association, and Tennessee Association of Mental Health Organizations, all of which represent providers in rural areas.*

- Criteria 2: Leveraging (utilizing) existing technology to adopt the most efficient and cost effective means of connecting those providers. *TTN will leverage existing dedicated statewide broadband technology to quickly and cost effectively connect healthcare providers in 92 of 95 Tennessee counties, as well as seven other out-of-state providers.*

- Criteria 3: Fully utilizing a newly created dedicated broadband network to provide health care services. *The TTN application includes a wide*

range of telehealth applications to fully utilize dedicated broadband

networks in Tennessee. To maximize this utilization the proposed

TTN solution calls for extensive end-to-end managed security and

authentification to overcome one of the major barriers to utilizing

telehealth applications today —health privacy and data security.

- Criteria 4: The applicant has a successful track record in developing, coordinating, and implementing a successful telehealth/telemedicine program within their state or region. *Members of the TTN project team established and have operated an existing regional telehealth program, including 100 telemedicine locations, for nine years. Other members of the TTN team have operated and managed a statewide private award-winning broadband network for the past five years.*

- Criteria 5: The number of health care providers included in the proposed network. Considerable weight will be given to applications that propose to connect the rural health care providers in a given state or region. *The TTN proposal includes more than 440 locations, with <u>nearly one-third</u> in rural areas. The remaining sites include specialists in urban areas that will serve these rural sites, and providers in cities and towns of all sizes that meet the needs of medically underserved patients.*

Community Health Network Proposal to The Federal Communications Corporation (FCC) for a Rural Health Care Pilot Program Grant to Establish the Tennessee TeleHealth Network

I. Organization Legally and Financially Responsible for Activities

A. Project Overview

Community Health Network (CHN) is the applicant organization which will be legally and financially responsible for the proposed broadband Tennessee TeleHealth Network (TTN) project, funded through the FCC Rural Health Care Pilot Program. CHN is requesting $7,760,179 in FCC funds to establish the TTN in Tennessee and bordering states to connect and provide managed services to 446 potential rural and urban subscribers. The primary goal of this project is to connect rural health providers to telehealth services and programs that are typically located in urban centers. However, the system will also provide connectivity services for all eligible nonprofit providers within the state and region who are eligible for and wish to participate in the network.

Based in Oakdale, Tennessee, CHN was established in 2001 as a 501(c)3 nonprofit corporation. Its mission is *to improve the qualify and efficiency of health care delivery for medically underserved communities in Tennessee through provision of affordable, integrated technology systems, expertise, and related business services for its members.* CHN, with funding and technical support provided by the State of Tennessee and University of Tennessee Health Science Center (UTHSC), will administer and

manage the TTN project. CHN will have responsibility for bidding and contracting with a

commercial broadband carrier to construct and provide state and regional network

services through Internet2, the nation's foremost research and educational network

consortium. Once TTN is established, CHN will administer network services for

subscribers. Payment for TTN connectivity services from subscribers, totaling

$1,351,380 (15%), will match FCC funds. To cover noneligible costs, the State of

Tennessee is providing up to $350,000 in grant funds plus in-kind staff support. The

total cost of providing connectivity services to 446 sites is estimated at $9.4 million.

To establish TTN, CHN is partnering with the University of Tennessee Health Science

Center (UTHSC), a recognized leader in regional telehealth services. UTHSC will

provide expertise, guidance and resources to help establish the TTN network and will

play a significant role in this project, both with respect to its implementation, as well as

through the provision of access to UTHSC telehealth programs and services. The

experience that UTHSC has acquired in establishing telehealth networks across the

Mid-South region for nearly a decade will be vital to the success of this project.

CHN is also partnering with the State of Tennessee, Department of Finance and

Administration, and has received state funds to ensure that the required project match is

fully met and to cover non-eligible project costs. The State of Tennessee has approved

funding of up to $350,000 for the project, and is also providing the assistance of state

personnel with extensive experience in the development of state networks. State and

UTHSC personnel and CHN staff will make up the TTN project team which will

implement and monitor the project over a 24-month period. The team members will play a key role in planning, guiding and directing the project. CHN will administer the project, managing the vendor bidding and selection process according to FCC requirements, contracting with and providing oversight and coordination with the selected service provider, implementing marketing and network service expansion, billing, accounting, and grant management and reporting. CHN will coordinate the virtual network system, and will serve as a broker for subscribers to obtain the most beneficial cost and managed services package possible. Attachments B-1 and B-2 illustrate the project management and TNN connectivity structure.

CHN has 14 Community Health Center (CHC) organization members, which operate 72 health centers serving 30 counties, with more than 1,000 employees across Tennessee. Of these, 10 or more health centers serve highly rural communities according to the Rural-Urban Commuting Area (RUCA) system. CHN will provide access to the broadband network to all of its member organizations, and additionally, will provide access to any other nonprofit or governmental health providers in Tennessee that wish to join the system. The estimated 446 eligible health facilities that may be connected to and receive services from TTN include community, rural and primary care centers, behavioral health centers, hospitals, U. S. Veterans Administration Medical Centers and 25 UTHSC nonprofit health providers in the UT telehealth network. A complete list of these facilities is included in Attachment E. This list does not include county health departments in Tennessee, which are currently eligible to connect to a broadband

network through a different program that covers 100 percent of the cost of connectivity However, county health departments may join the TTN if they desire.

CHN and its project partners propose to seek bids for managed connectivity and Internet2 services via MultiProtocol Label Switching (MPLS) connections from managed connectivity providers. Managed providers will be required to provide equipment purchase and installation, maintenance and help desk, as well as ongoing connectivity services. The FCC grant funds will pay 85 percent of the upfront charges for each installation, estimated at $1.000 each, and of providing connectivity services to participating health facilities during the two-year grant period, estimated at approximately $800 per month or $9,600 annually. Participating health facilities will be required to pay the remaining 15 percent match to cover eligible project costs during the two-year project. After the first two years, users will be required to pay 100 percent of the cost of subsequently negotiated discounted managed services. The initial service contract with the managed carrier will be for two years. The total set up and connectivity charges will average $12,292 per year per subscriber in the first year.

CHN's application is based on an understanding that managed connectivity is included in the definition of allowable "advanced telecommunications and information services" under current FCC regulations for this pilot project. In the event managed connectivity is not allowed under current rules, CHN will request a wavier from the FCC to include managed connectivity as a condition for bidding the needed telecommunication connections. CHN's desire for managed connectivity is based on the experience of the State of Tennessee with the TNII (Tennessee Information Infrastructure

http://www.tnii.net/) system, which has shown that the bundling of managed services
by the carrier is the most cost effective approach to providing connectivity
services. Managed services significantly reduce costs, maximize reliability and uptime
and meet the needs of customers for privacy and security. Conversely, purchasing
managed services separately from connectivity increases costs, and creates a need for
additional layers of administration1 and overhead, increasing the likelihood of system
errors and malfunction. Managed bundled services are increasingly demanded by
consumers because they provide a convenient "one-stop-shop" that can better assure
internal compatibility and fewer operational problems. Some of the services TTN
expects to offer its broadband subscribers include:

- End site managed 384K TI, through OC3 connection
- Internet access with managed security and authentication (IDS and firewalls)
- Easy connection to all other sites on the TTN and TNII networks
- Managed H.323 video services within and outside the TTN community
- Easy-to-use video conference scheduling software and support group
- Proactive network monitoring
- Low cost point-to-point data service with T I or a DS3 connection
- Low cost dial-up service throughout Tennessee with a single access number
- Low cost Primary Rate ISDN Service
- Domain name services (DNS), e-mail accounts, and Web-site hosting.
- Software and application service provision (ASP)
- Web conferencing

- Surveillance, monitoring and closed circuit TV.

As was noted before, funding of up to $350,000 to support the networks development has been committed out of a $1.6 million grant which the State of Tennessee awarded to CHN in early 2007. The State is partnering with CHN on this and other telehealth projects, and confirmation regarding the availability of these funds is outlined in an attached letter from the State, included in Attachment A. Three state employees with extensive experience, recent involvement and proven success in developing and managing large-scale networking systems will work with CHN on this project to establish and integrate the proposed network with the TNII (Tennessee Information Infrastructure) network, which currently provides managed connectivity services for state and local government agencies and educational institutions, and is continuing to expand with initiatives such as this one.

CHN will also collaborate with three other nonprofit trade organizations, the Tennessee Primary Care Association (TPCA), the Tennessee Hospital Association (THA), and the Tennessee Association of Mental Health Organizations (TAMHO) to provide their nonprofit members with discounted access to the TTN, as well as other CHN member services. These agencies, their background, experience and their role in this project are described in the following section.

B. CHN Experience. Current Status of Projects, and Service Expansion Plans

In the fall of 2001, ten Community Health Centers (CHC) in Tennessee and Mississippi established CHN with the goal of creating shared information technology and other services for member organizations. The original members were Christ Community Health Services, Citizens of Lake County for Healthcare, East Tennessee State University College of Nursing Office of Practice and Research, Hardeman County Community Health Center, Matthew Walker Comprehensive Health Center, Morgan County Health Council, Northeast Mississippi Healthcare, Perry County Medical Center, REACHS, and the Maternity Center Managed Service Organization. The Tennessee Primary Care Association was an ex-officio member. At that time, most of the members operated small to medium-size clinics in rural or medically underserved urban areas.

In 2001, CHN received its first USDA Rural Health Development Grant to create a centralized network to handle the information system needs of its members. The grant supported integration of member health centers' systems beginning with business technology. During 2002, CHN invested more than $200,000 in hardware and software for its data center, in consultant fees, and in hardware and software for **a** practice management system at Christ Community Health Center (CCHS) in Memphis. Between 2003 and 2005, CHN received three successive grants of $199,479 from the Health Resources Services Administration's (HRSA) Office of Rural Health Policy to continue integrating its member health centers' information systems. These Federal grant projects were instrumental in sirengthening the health care delivery systems of CHN members, and enabled CHN to become a self-sustaining organization supported by

member payments for services. Total revenues received from members for dues and services in 2006 were $556,495, a figure which is expected to increase by 21% in 2007.

Most recently, in October 2006, CHN was awarded a $370,233 Telemedicine and Distance Learning (TDL) grant from the U.S. Department of Agriculture (USDA). The USDA contract was received in April 2006, and the TDL project is now under way with equipment bids having been received and installations planned for early May 2007. The carrier for this project will be the TNII network, which has contracts to provide network services for the State of Tennessee. The State provided a $1.6 million grant to CHN in February 2007 to expand the TDL project from an initial 17 sites to 45 sites. CHN is using $300,000 in state funds to expand the TDL network to include these additional sites, and a portion of the remaining $1.3 million will be used as match for the FCC-funded pilot program proposed here.

The equipment that is being purchased through CHN's TDL and state funding includes video equipment and retinal cameras for use in 45 Community Health Centers. The cameras will be used by primary care physicians to capture retinal images for transmission and diagnosis of diabetic retinopathy and other eye diseases by specialists at Vanderbilt Ophthalmologic Imaging Center. The specialists at Vanderbilt will read the images, and assist the primary care doctors in patient diagnosis and treatment.

Through the TTN Internet2 connection, CHN and the State of Tennessee are proposing to support an important eye research project now underway at the Oak Ridge National Laboratory (ORNL). The ORNL project, which began in 2004, uses digital retinal photography and optical coherence tomography—a technique for examining living tissue non-invasively –to image and quantify disease-based changes in the retina. ORNL scientists Ken Tobin, Tom Karnowski, and Priya Govindasamy, in partnership with Dr. Edward Chaum, an ophthalmologist and Plough Foundation professor of retinal diseases at the UTHSC in Memphis, are developing an extensive image database of known retinal disease states for clinical validation studies. The resulting dataset will be used to develop statistical feature descriptions for image indexing, retrieval and diagnosis, which has benefits for treatment and prevention of up to 80 percent of blindness.

This ORNL project has obtained Institutional Review Board approval, and with patient and provider consent, images from CHN clinics can be relayed via Internet2 to the CHN Knoxville data center and from Knoxville to ORNL. Dr. Chaum and ORNL scientists have communicated their strong interest in collaborating with CHN and its members. This is only one of many potential applications involving utilization of the TTN and Internet2 to connect local community health providers with researchers and specialists who are working to advance the diagnosis and treatment of debilitating diseases such as diabetic retinopathy, glaucoma and macular degeneration.

Through these and other applied IT and telehealth projects, CHN and its members are working to expand services and improve the health outcomes of rural and underserved patients in Tennessee. CHN's 4.5 full-time equivalent (FTE) staff, led by Chief Executive Officer Keith Williams under the direction of a strong and active board, draws directly on its members' 1000+ provider and employee base whenever necessary to coordinate the network and provide services. This close relationship between CHN's staff and practitioners working 'directly with patients every day in the field has created a structure where the benefits of advanced technology can continuously be directed towards patients and improvements in their quality of care.

C. Partnering Organization' Experience and Expertise

University of Tennessee Health Science Center (UTHSC)

UTHSC will be a major player in the proposed Tennessee TeleHealth Network (TTN) and brings a significant level of experience in the telehealth field that will help to ensure the success of this project. The University of Tennessee's Telehealth Network consists of primary, secondary and tertiary health care providers across the Mid-South region connecting resources and specialists in Memphis and Shelby County's medical centers with patients in more than 35 underserved rural counties in Arkansas, Mississippi and Tennessee. Since the network's inception six years ago, 15 different telehealth projects have been successfully implemented at 100 sites, all aimed at expanding access and improving the quality of healthcare in Tennessee and the Mid-South region. Many of these projects have been developed and managed in collaboration with the Tennessee

Department of Health and the Tennessee Department of Children's Services, including

projects include using telehealth to:

- Provide specialty consultations to patients in underserved areas

- Help diagnose and treat tuberculosis throughout Tennessee

- Treat the unmet behavioral health needs of children in state custody

- Offer follow-up oncology care to rural communities

- Provide proctoring for pharmacy residents

- Conduct in-home diabetes monitoring and home health care in East Tennessee

- Offer pediatric cardiology services to rural hospitals

- Provide follow-up care to transplant patients in West Tennessee

- Offer educational broadcasts to isolated medical personnel through streaming

  video on a Web site that averages 17,000 hits a month.

Projects that collaborate with the UT Telehealth Network are able to utilize an extensive

existing video conference (VC) network maintained by UTHSC in support of special

projects and targeted telemediicine interventions across the region. The network is built

upon a secure infrastructure of dedicated T-1 lines, and is made affordable through a

low negotiated rate for telecommunications that takes advantages of discounts to state

agencies. This network is independent of the state network, but can link to it and other

broadband networks.

In addition to specialty providers at UTHSC, through a cooperative arrangement with Le

Bonheur Children's Medical Center and the Regional Medical Center at Memphis,

UTHSC has access to almost every medical subspecialty available in Memphis. Clinicians employ digital diagnostic tools, including stethoscope, a hand-held camera (for dermatology or general exams), an otoscope for ENT exams, a document camera and a room camera for histories, and interactive dialogues. Through the use of this and other radiological equipment, the UTHSC Telehealth Network can provide specialized services in:

- Allergy/Immunology
- Behavioral Health
- Cardiology
- Dermatology

- Endocrinology
- ENT
- Genetics
- Neurology

- Pediatrics
- Pulmonology
- Radiology
- Wound Care

Dermatology, radiology and mental health are three of the UTHSC specialty areas that most heavily use telehealth technology. The network also provides an average of six medical education (CME) and training sessions each week, targeted toward providers and patients alike. The involvement of UTHSC in this project helps to ensure that rural and other CHC providers will have access to medical specialists at UT Memphis and at other urban medical centers. Furthermore, the working relationships and partnerships UTHSC has established with providers of every kind in Memphis and West Tennessee will be invaluable in expanding the TTN within this part of the state.

<u>State of Tennessee</u>

The State of Tennessee is a major partner in this application and has provided funds to CHN to establish a statewide telehealth network. Since 1999, the State of Tennessee has **led** and funded the development of a statewide networking system for state

agencies and institutions of higher learning known as the Tennessee Information infrastructure (TNII) network. TNII is a fully operating managed services network established through a competitive! bidding process by the State of Tennessee. Because of the functional and cost benefits of integrating the proposed TTN with the existing TNII state network, CHN will require vendors to ensure access to the TNII system in their bid.

The TNII project is the first state government coordinated, managed services network in the United States to use leading edge MPLS IP/VPN technology, allowing multiple entities with disparate Internet Protocol (IP) addressing structures to co-exist on the same physical network infrastructure. The network was competitively bid and awarded to a provider-partnership of BellSouth, Qwest, and their sub-contractors, who provide total managed network services, including design, provisioning, implementation, operations, monitoring, and asset ownership of wide area network core and customer premise edge equipment for more than 1,400 sites. The network was competitively bid during a state procurement process in 1999 and meets all state-mandated fair purchasing requirements.

The TNII network provides local, long distance, mobile, and global access to current and emerging data, voice, video and Internet services, and has an infrastructure capable of incorporating and adapting to emerging technologies and software applications. TNII operates through the use of a carrier-class, Cisco Systems MPLS network that provides IP/VPN :services, leveraging a single, statewide communications infrastructure to provide Virtual Private Networks or (VPNs). To date, six VPNs, have

19

been implemented for the State of Tennessee, Tennessee Board of Regents, libraries

and local governments, the University of Tennessee system, eHealth, and Internet2,

providing network autonomy and security, while simultaneously facilitating inter-

communication within and between entities. Another logical VPN, known as "TNII

Common Services," shares complex networking solutions such as video transmission

between subscribers from any of the VPN networks. This approach builds common

solutions that can be used many times by multiple subscribers. For more information on

TNII, see http://www.tnii.net/#.

In addition, as part of a major health initiative which builds upon the success of the TNII

system, in April 2006 Tennessee Governor Phil Bredesen signed Executive Order 35

establishing the Governor's eHealth Advisory Council to coordinate eHealth initiatives

across the state. The Council's mission is to ensure the successful development and

implementation of electronic medical records (EMRs) in Tennessee, including a plan to

promote the use of EMRs and lo facilitate implementation of a health information

infrastructure. In 2006 Tennessee ranked 4th in the nation in receipt of federal funds for

EMRs and health informatics technology (following Massachusetts, Indiana and Utah).

Tennessee is also one of only five states to be awarded a five-year grant from the

Agency for Healthcare Research and Quality (AHRQ) to develop EMRs and health

informatics technology (http //www chattanoogan com/articles/article 83310 asp).

The Governor's eHealth Council is chaired by Antoine Agassi, and is housed within the

Department of Finance and Administration. Projects supported by the Council include:

- **CareSpark**, central Appalachia initiative that will be a regional prototype for a National Health Information Network, is funded through a $5.6 million contract from the US. Department of Health and Human Services. The project will develop an interoperable standards-based network for the secure exchange of health care information.

- **MidSouth eHealth Alliance**, created in 2004 and based in Memphis, serves as the nexus for a broad, subscriber-based data-sharing organization working toward a model for electronic medical records that could be applied nationally. The project works in partnership with Vanderbilt University, a leader in health information technology. The State committed nearly $9 million over five years to this project in addition to $5 million from the Agency for Healthcare Research and Quality.

- Shared Health, a subsidiary of Blue Cross Blue Shield of Tennessee, is working in partnership with TennCare, Tennessee's Medicaid program serving 12 million Tennesseans, to implement an EHR initiative.

- Eastern Tennessee Health **Information** Network (ETHIN), a collaborative between four Knoxville hospitals, received a grant of $985,000 from the

Physicians' Foundation for Health Systems Excellence to launch a program to improve access to patient records, enhance the quality of care and reduce costs

Tennessee Primary Care Association (TPCA): The proposed TTN broadband network will provide subscriber access to members of the TPCA. Founded in 1976, TPCA is a not-for-profit corporation with the goal of strengthening community-based primary health care systems in Tennessee with an emphasis on medically underserved communities. TPCA currently has 37 member health organizations in Tennessee. Of these, up to 153 health center sites will be eligible to participate in the TTN through the FCC Rural Pilot Program project. TPCA will actively promote the availability of TTN to its member organizations through its Web site (http://www.tnpca.org/), e-mails, and at state and regional conferences.

Tennessee Hospital Association (THA) : The THA was established in 1938 as a non-membership association to advocate for hospitals, health systems and other healthcare organizations and the patients they serve. THA provides education, information and a variety of business services to its 200 healthcare members, including hospitals, home care agencies, nursing homes, health-related agencies and businesses. Approximately 108 nonprofit THA members will be eligible to access CHN's eHealth Network. Although many of the hospital members of THA are located in urban areas, their inclusion in the network and project is essential to providing rural providers with access to specialized medical care, as most specialists are located in urban areas. THA will

actively promote the availability of the TTN to its member organizations through its Web site (http://www.tha.com/), e-mails,, and at state and regional conferences.

The Tennessee Association of Mental Health Organizations (TAMHO) is a statewide trade association representing Community Mental Health Centers (CMHCs) and other non-profit and governmental entities that provide behavioral health services. TAMHO's member organizations, numbering **19,** help to meet the needs of mentally **ill** and chemically dependent residents in Tennessee. Up to 160 TAMHO member sites will be eligible for TTN. TAMHO will also promote the availability *of* the TTN to its member organizations through its Web site (http //www tamho org/), e-mails, and at conferences and other means.

II. **Goals and objectives of the proposed network**

Goal: To establish a connectivity structure serving non-profit health centers and hospitals in rural and medically underserved communities to improve the quality of healthcare for rural and underserved patients. The proposed structure will:

- facilitate exchange of information and share programs (practice management, electronic health record and telemedicine)
- connect to UTHSC, the Tennessee Primary Care Association, Tennessee Hospital Association, Tennessee Association of Mental Health Organizations

and other health trade organizations to facilitate member distance learning and
training opportunities

- access specialty medical care, training and research opportunities available at
state urban regional medical centers and institutions

- connect via Internet2 to national medical centers to further access specialty care,
training and research opportunities not currently available in Tennessee

- connect to Internet2 to facilitate and support research collaboration with major
scientific institutions (i.e. Oak Ridge National Laboratory)

Performance Objectives: (Please see work plan on p. 49 for detailed schedule).

1. Establish an operational plan including provider service standards, procedures, and
performance measures for provider managed services, as well as for CHN internal
project administration within 45 days of grant award.

2. Request bids for managed services within 60 days of grant award and award a
project contract to the most qualified bidder within 120 days of grant award.

3. Provide managed broadband service to 446 or more nonprofit subscribers within 10
months of the project's start, adding 100 subscribers per month once installations begin.

4. Establish and implement internal billing, accounting, service audit, and customer
satisfaction surveys concurrent with the first service installations.